Novel halohydrin dehalogenases by protein engineering and database mining

Schallmey, Marcus

university of groningen

Propositions

accompanying the PhD thesis

Novel halohydrin dehalogenases by protein engineering and database mining

by Marcus Schallmey

1) Directed evolution protocols should not focus on single residues as multiple-site-saturation mutagenesis has proven to be more effective in yielding mutants with target properties through cooperative effects.

2) Targeting proline residues in directed evolution studies should rather be seen as an opportunity than as a risk.

3) Prescreening mutant libraries, even for non-target or parental activities, will increase the odds of finding hits during screening for target activities.

4) Efficient protocols for the generation of genetic diversity currently outperform established quantitative screening protocols by at least a factor of 1000 in throughput.

5) When considering the protection of scientific results in form of a patent, one should bear in mind that it is necessary to have funds to defend or enforce a granted patent.

6) Since a journal impact factor averages the number of citations of all articles, it is puzzling that this is such a prominent measure to judge individual scientific performance. Article-based metrics are much more suited for this job.

7) Since our society's prosperity largely stems from an intellectual lead, the reluctance to adopt encryption is disturbing in times when practically everybody, friend or foe, can intercept and read electronically exchanged scientific ideas and results.

8) To ensure improvement of rejected manuscripts, journals should set up a joint database where expert reviews are collected.